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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,188	02/12/2002	Peter G. Loges	56326-041 (IOPL-119)	6665

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EXAMINER

FASTOVSKY, LEONID M

ART UNIT PAPER NUMBER

3742

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/074,188	<b>Applicant(s)</b> LOGES ET AL.	
	<b>Examiner</b> Leonid M Fastovsky	<b>Art Unit</b> 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 12-24 and 26-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-24 and 26-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1- 4, 6-8, 12-13, 22-23 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauer (3,394,257) in view of Pritzker (1,514,628).

With regard to claims 1-2, 4, 6-8, 22-23 and 26-28, Moldenhauer teaches a radiation source comprising a base 7, a curved parabolic reflector 2, two pins 6 passing through the base 7, a first pin having a first portion, that extends at an angle with respect to the axis, a second pin having a second portion which extends at an angle with respect to the axis, a filament 11 helically wound around the pins such that pins are located between the filament and the axis of the reflector, a window 3, and an inert gas contained within the enclosure, but does not disclose that the helically wound filament has a diameter that decreases along the axis and that a width of the filament is greater than space between adjacent coils. Pritzker shows such a helically wound filament (Fig. 1-5). It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer to include a helically wound filament having a diameter decreasing along the axis and a width greater than the space between

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adjacent coils as taught by Kuhn as a matter of design choice, since the applicant has not disclose that this type of filament solved any problems or is for any particular purpose, and it appears the the invention would perform equally well with existing filament. Moreover, as stated on Page 6 (Paragraph 25), the filament can be provided with a constant diameter.

With regard to claims 3, 12-13, and 29, Moldenhauer and Pritzker do not disclose an elliptic reflector comprising a non- ferrous metal, and coated or plated with at least one of the aluminum, gold and silver, and that the second pin includes a third portion and a fourth portion. It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer and Kuhn to use materials and an elliptic reflector as a matter of design choice, since the applicant has not disclose that these materials and elliptic reflector solved any stated problems or is for any particular purpose, and it appears that the invention would perform equally well with existing materials and reflector's shape.

3. Claims 5, and 14- 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauer and Pritzker as applied to claims 1-4, 6-8, 12-13, 22-23 and 26-29 and further in view of Boland et al (5,438,233) and George et al (2002/0096492).

Moldenhauer and Pritzker disclose substantially the claimed features including a radiation source comprising a base, a curved reflector, two pins passing through the base, a filament helically wounded around the pins, and a window. Moldenhauer and Pritzker do not disclose that the window is made out of different materials, filament textured features, and emissions cut-off wavelength. Boland et al shows that window

includes a sapphire and germanium (Col. 3, lines 50-65), George et al shows filament textured features (Col. 2, [11]), and Boland et al shows a cut-off wavelength (Col. 2, lines 50-65). It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer and Pritzker to use materials and a cut-off wavelength size as taught by Boland and filament textured features as taught by George et al to select an infrared wavelength spectrum.

4. Claims 24 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moldenhauer and Pritzker as applied to claims 1-4, 6-13, 22-23, and 25-29 and further in view of Karlsson (6,034,360).

Moldenhauer and Pritzker disclose substantially the claimed features including a radiation source comprising a base, a curved reflector, two pins passing through the base, a filament helically wound around the pins, and a window, but does not disclose filament and pin materials. Karlsson shows that filament comprises nickel-chromium and pins are made from Kovar (claims 10-11). It would have been obvious to one having ordinary skill in the art to adapt a modified invention of Moldenhauer and Pritzker to use materials as taught by Karlsson to tune for an applicable frequency range.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 703-306-5482. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 703-305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Leonid M Fastovsky  
Examiner  
Art Unit 3742

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